

Inventors: Haw Jye Shyu
Serial Number

PATENT APPLICATION
Navy Case No. 95,756

Remarks/Arguments

The claims now presented claims 12-22 were previously presented in U. S. Patent Application 09/477,811. The Examiner had rejected these claims under prior art and the applicant cancelled the claims without prejudice in view of filing this continuing application. The examiner did indicate the allowability of claim 22 if redrafted with certain details of the specification. The applicant then amended this claim and redrafted the claims in the parent case in accordance with the new claim. However the original claims 12-22 have not been analyzed in view of the definition of the invention as set forth in the disclosure. The invention relates to a sensor system utilizing a Composite Hough Transform (CHT) operating on multiple corresponding broadband correlograms produced at two neighboring dual-channel sensor systems. A broadband signal source can generate one correlation trace on each of the correlograms. Since these correlation traces are produced by the same signal source, they are constrained by a set of geometric relationships. By fully exploiting this set of constraints, the CHT fuses sensor data from multiple dual-channel sensor systems for target detection and track parameter estimation. The dual-channel system can be (a) a split-array system; a linear array split into two subarrays with each subarray corresponding to one of the channels, (b) two neighboring linear arrays, or (c) two neighboring individual hydrophones. The CHT operates with two neighboring linear subarrays. One of the sensor arrays is chosen as the primary array; it

Inventors: Haw Jye Shyu
Serial Number

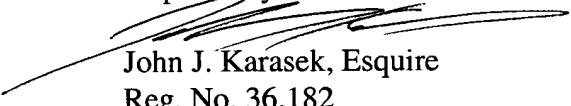
PATENT APPLICATION
Navy Case No. 95,756

is used to originate the different track hypotheses for the signal source. Its corresponding broadband correlogram is referred to as the primary correlogram. The other sensor array is the secondary array, and the corresponding broadband correlogram is referred to as the secondary correlogram. The CHT exploits the geometric relationships between the primary and secondary array.

The applicant submits that the invention as disclosed and claimed as not been taught by the prior art in view of the detailed summary given above. In view of the applicant's amendment now submitted, the Examiner is asked to review these claims for allowance and to pass this case to issue at the earliest possible date.

Kindly charge any additional fees due or credit overpayment of fees to Deposit Account Number 50-0281.

Respectfully submitted,



John J. Karasek, Esquire
Reg. No. 36,182
Associate Counsel (Patents)

Prepared by:
John Gladstone Mills III, Esquire
Reg. No. 49,054
September 8, 2003